Report On “Workshop Chemistry”

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In this program, students meet weekly in small groups to practice solving chemistry problems aided by a workshop leader.

David Gosser (City College of New York) and Pratibha Varma-Nelson (St. Xavier University, Chicago) presented the Workshop Chemistry initiative, “a coalition of faculty, students, and learning specialists organized around a peer-led, team-learning model of teaching chemistry.” Through presentations and small group discussions with undergraduates, participants learned about this program, how it has been implemented at two different schools, and how it might fit into their own curriculum.

"Workshop Chemistry" by David Gosser was presented at the “Day 2 to 40” workshop symposium held May 10–11, 1997. The two-day event was held in the Willard H. Dow Chemical Sciences laboratory building on the central campus of The University of Michigan in Ann Arbor, Michigan. Each of the articles that comprise this issue was written by one of the group of reporters whom I asked to attend each session to take field notes and then follow up with the session leader and participants afterwards.

—Brian P. Coppola, Proceedings Editor
Descriptive Outline

David Gosser began the workshop with an overview of the Workshop Chemistry program and the schools where it is currently underway. After his presentation, Dawn Patitucci described her experience at St. Xavier University as a peer workshop leader, and then Jewel Daniel read some quotes from reflective journals kept by student workshop leaders at City College of New York (CCNY). Participants then heard Carol Munch, currently enrolled in a course at St. Xavier which includes workshops, give a student’s perspective on the program. After these presentations, attendees were divided into three groups, each with a peer facilitator, and were given some example problems from an organic chemistry workshop. The groups worked through the problems with the help of the facilitators, or chose to use that time to ask the students questions about the program. Near the end of the two-hour session, the participants reunited into one group, and Gosser lead a discussion of some of the issues which had come up in the smaller groups.

Report

David Gosser, Pratibha Varma-Nelson, and a host of undergraduates presented an overview of their “Workshop Chemistry” effort, one of five major chemistry curriculum initiatives sponsored by the National Science Foundation. In this program, students meet weekly in small groups to practice solving chemistry problems aided by a workshop leader. What sets the project apart is that the leaders are themselves undergraduates, most of whom have just completed the class themselves.

Gosser explained that the Workshop Chemistry program focuses on the student experience with the goal that the undergraduates become part of a community of learners. Used in addition to lectures or other large class meetings, the workshop is a required and integral part of the course. The small group setting accommodates diverse learning styles and provides mentoring relationships, according to Gosser. “Ideally, students learn how to communicate scientific ideas and work as part of a team at the same time that they improve their understanding of the material and their problem-solving ability,” Gosser said.

The workshop leaders in this model are not expected to be chemistry experts, and they are not supposed to teach the chemistry to the students. Instead, they should be “experts in learning the material,” having recently taken the class themselves.